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ABSTRACT

The author reviews literature on the acquisition of language in bilingual children, and discusses issues in the assessment of language impairment in this population. Cited among findings of bilingual research are that children can and do acquire more than one language during early childhood and the acquisition of two languages can be parallel, but need not be. It is pointed out that the child's surrounding environment affects such factors as the specific linguistic and metalinguistic information important for the development of each language and the specific social language use rules for each language. The speech therapist is seen to face a dilemma in testing the bilingual child--to use inappropriate instrumentation and norms which may lead to false positives or not to address the possible existence of language impairment in bilingual children which may result in severe disservice to children in legitimate need. (SB)

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# Bilingual Development and the Assessment of Language Impairment

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## BILINGUAL DEVELOPMENT

Certainly, one of the most impressive characteristics of children's development is related to language acquisition. It seems remarkable that within the first few years of life, drastic changes in linguistic competence can clearly be identified (Menyuk, 1971). Although the exact variables influencing this development are still not evident, research in this field has been voluminous and theoretically varied (Lenneberg and Lenneberg, 1975; DeVilliers and DeVilliers, 1978). The main focus of this research has centered on single language acquisition (Brown, 1973) although more recent research has employed comparative linguistic analysis with children who are learning different languages (Bowerman, 1975; Braine, 1974). Compared to these bodies of literature, very little systematic investigation is available regarding children who are acquiring more than one language, simultaneously, during the early part of their lives.

It does seem clear that a child can learn more than one linguistic communicative form in many societies throughout the world and many children do so. Sorensen (1967) describes the acquisition of three to four languages by young children who live in the Northwest Amazon region of South America. In this Brazilian-Columbian border region, the Tukano tribal language serves as the lingua franca, but there continues to exist some 25 clearly distinguishable linguistic groups. In the United States, Skrabanek (1970) reports the continued acquisition and support of both English and Spanish language systems among young preschool children of our Southwest for the last hundred years with no indication that this

phenomenon will be disrupted. Although not apparent from a cursory scanning of linguistic literature, research with bilinguals is not a recent subarea of linguistic or psychological interest. Ronjat (1913) reports the development of French and German in his own son. Finding little deleterious effects of bilingual development, he attributed such positive outcomes to the separation of the languages. In this particular case, one parent consistently spoke French and the other German. Pavlovitch (1920) also reports the development of two languages, French and Serbian, in his son. Similarly, languages were separated across individuals. The languages reportedly developed simulatneously with minimal confusion. Geissler (1938) reports, anecdotally, that as a teacher of foreign languages he had observed young children acquire up to four languages simultaneously without apparent difficulty. However, Smith (1935), in a study of missionary families who spoke English and Chinese, reports difficulty during simultaneous acquisition. This difficulty was most apparent in the language mixing character of some children's speech.

One of the first systematic investigations of bilingual acquisition in young children was reported by Leopold (1939, 1947, 1949a, 1949b). This author set out to study the simultaneous acquisition of English and German in his own daughter. These initial descriptive reports indicate that as the subject was exposed to both languages during infancy, she seemed to weld both languages into one system during initial language production periods. For instance, early language forms were characterized by free mixing. Language production during later periods seem to indicate

that the use of English and German grammatical forms developed independently.

More recent studies have systematically addressed several issues relevant to bilingual acquisition. Carrow (1971, 1972) has restricted her study to the receptive domain of young bilingual Mexican-American children in the Southwest. Children (ages 3 years 10 months to 6 years 9 months) from bilingual Spanish-English home environments were administered the Auditory Test for Language Comprehension. This test consists of a series of pictures representing referential categories that can be signaled by words, morphological constructions, grammatical categories and syntactic structures. These include verbs, adjectives, adverbs, nouns, pronouns, morphological endings, prepositions, interrogative and syntax complexity in both languages. A comparison of English and Spanish comprehension on this task for bilinguals revealed (Carrow, 1971): (1) linguistically, children were very heterogeneous; some scored better in one language than another, others were equal in both; (2) a greater proportion of children scored higher in English than in Spanish; (3) older children scored higher on these measures in both languages. (This was the case even though Spanish was not used as a medium of instruction for children who were in educational programs.)

In a cross-sectional comparison of English comprehension among monolingual English and Bilingual, Spanish-English children (ages 3 years 10 months to 6 years 9 months), Carrow (1972) reports a positive developmental trend for both Spanish and English in bilingual children. Additionally, bilingual children tended to score lower than monolingual

children on English measures during ages 3 years 10 months to 5 years 9 months; but for the final age comparison group (6 years 9 months), bilingual and monolingual did not differ significantly on these same English measures. These combined results seem to indicate that at the receptive level, Spanish-English bilingual children were: (a) progressing (increasing their competence) in both Spanish and English; (b) heterogeneous as a group, most favoring one language (typically English) over another; and, (c) "lagged" behind monolingual children in their acquisition of English at an early age (4-5), but eventually "caught up" at a later age (6-7). Since these studies were only at the receptive level, used specific "test" procedures, and restricted the population of study to one regional bilingual Hispanic population (Texas Mexican-Americans), there exist serious constraints to the conclusions reported above. But, they do offer some initial empirical information relevant to the study of early childhood bilingual development.

With respect to expressive development, Padilla and Liebman (1975) report the longitudinal analysis of Spanish-English acquisition in 2, 3-year-old bilingual children. These researchers followed the model of Brown (1973) in recording linguistic interactions of children over a five month period. By an analysis of several dependent linguistic variables (phonological, grammatical, syntactic and semantic characteristics) over this time period, they observed gains in both languages although several English forms were in evidence while similar Spanish forms were not. They also report the differentiation of linguistic systems at phonological, vocabulary and syntactic levels. They conclude:

> "the appropriate use of both languages even in mixed utterances was evident; that is, correct word order was preserved. For example, there were no occurrences of 'raining esta' or 'a es baby,' but there was evidence for such utterances as 'esta raining' and 'es a baby.' There was also an absence of the redundance of unnecessary words which might tend to confuse meaning." (page 51)

Garcia (1980a) reports developmental data related to the acquisition of Spanish and English for Spanish-English bilingual preschoolers (3-to 4-year olds) and the acquisition of English for a group of matched English only speakers. The result of that study can be summarized as follows: (a) acquisition of both Spanish and English was advanced based on the quantity and quality of obtained morphological and syntactic instances of language productions; (b) English was more advanced than Spanish on these same measures and (c) there was no quantitative or qualitative difference between Spanish-English bilingual children and matched English-only controls on English language productions.

Huerta (1977) has provided a report of a longitudinal analysis for a Spanish-English, Bilingual, 2-year-old child. She reports a similar pattern of continuous Spanish-English development, although identifiable stages appeared in which one language forged ahead of the other. Moreover, she reports the significant occurrence of mixed language utterances which made use of both Spanish and English morphology. In all such cases, these mixed linguistic utterances were well formed and communicative. Garcia, Maez, and Gonzalez (1980), in a national study of bilingual children age four, five and six years of age, found regional

differences in the relative occurrences of switched language utterances. That is, bilingual, Spanish-English children from Texas, Arizona, Colorado, and New Mexico, showed higher (15-20%) incidence of language switched utterances, than children from California, Illinois, New York or Florida, especially at pre-kindergarten levels. These findings suggest that some children may very well develop an "interlanguage," in addition to the acquisition of two independent language systems later in development.

The above "developmental" findings can be capsulized succinctly but not without acknowledging their tentative nature:

(1) Children can and do acquire more than one language during early childhood.

(2) The acquisition of two languages need not hamper, developmentally, the acquisition of either language.

(3) The acquisition of two languages can be parallel, but need not be. That is, the qualitative character of one language may lag behind, surge ahead or develop simultaneously with the other language

(4) The acquisition of two languages may result in an "interlanguage", incorporating structural aspects of both languages. This need not be the case. That is, languages may develop separately with "mixed" forms a rarity.

A careful review of the above conclusions indicate that except for (1) and (2), contradictions concerning the empirical reports regarding the nature of bilingualism in early childhood are the rule, rather than the desired exception. If one disregards the possible procedural incongruencies in accounting for such contradictions, (and, at the present

time this is not a recommended strategy,) what conclusions are actually possible?

If forced to make any statement regarding these discrepancies in the data, it seems defensible to suggest the overall importance of the social environment in accounting for the specific discrepancies regarding the parallel vs nonparallel development (#3 above) and the separate vs interlanguage development (#4 above), may very well have their origin in the differential bilingual social milieus occupied by individual or groups of children during early childhood. The task awaiting empirical researchers following such a theoretical thrust is to isolate these variables which individually or as a group directly or indirectly influence bilingual acquisition.

Beyond the basic developmental research discussed above, a second popular form of research has considered the interactive influence of multiple language acquisition. That is, does learning more than one language influence the rate and/or quality of acquisition of each language? When referring to the interactive phenomenon between languages of the bilingual, the terms "linguistic transfer" or "interference" are often used. This latter term has gained multiple meanings as is shown by its gain of various modifiers, "linguistic interference," "psychological interference," and "educational interference" (Saville and Troike, 1971). Experimental studies of specific instances of "transfer" or lack of it are available with bilingual children. For instance, Evans (1974) reports the comparison of word-pair discriminations and word imitations in Spanish and English for monolingual English

and bilingual Spanish/English children. Elementary school children were asked to discriminate between words containing English phonemes considered difficult for Spanish speakers. (Examples are the phonemes /b/ and /v/ which are clearly separate in English but not so clearly separate in Spanish). Additionally, children were requested to imitate a series of words in each language which were also considered "difficult." Bilinguals did not differ from monolinguals on any of the English tasks. But as expected, bilinguals scored significantly higher than monolinguals on all Spanish tasks. Garcia and Trujillo (1979) report a similar finding when they compared bilingual (Spanish/English) and monolingual (English) three, four, five, six, and seven year-olds on high error risk phonemes in Spanish that adult Spanish speakers mispronounce, and simple to complex syntactic forms (sentences containing plural and possessive morphemes). Bilinguals did not differ from monolinguals on English imitation tasks where both groups scored near 100% correct; but, they did differ significantly and made less errors than English speakers on Spanish tasks. This was the case across all age levels. These studies suggest that negative transfer at the phonological level in young bilingual children is non-existent.

In this same study (Garcia and Trujillo, 1979), however, the imitation of complex Spanish sentences which involved adjective placement were not imitated correctly by the bilingual subjects. Complex English sentences of this type presented no significant problem for either bilingual or English-only children. Recall that adjective

placement in Spanish ("pato azul") differs from adjective placement in English ("blue duck"). Therefore, it is likely that transfer (both positively and/or negatively) is a possibility as syntactic complexity increases and as difference in syntactic structure across the languages of the bilingual are involved. An earlier report (Garcia, 1977) has indicated the existence of transfer in the form of language substitution during the acquisition of prepositional labels in the "weak" language of the bilingual. In this study, bilingual, Spanish/English children whose performance on the labeling of prepositional concepts differed across languages served as subjects. That is, subjects could provide the correct prepositional label in one language (first language) but not the other (second language). Language substitution occurred when subjects were taught to label prepositions in the second language. Therefore, transfer may very well take the form of "failure to discriminate" the language deemed socially appropriate. Such transfer effects are more sociolinguist in character rather than linguistic.

On the other hand, Dulay and Burt (1972, 1973) report finding few linguistic errors in English which could be attributed to children's first language even when the child's first language varied from Oriental to a Western European derivative. They have concluded that identifiable English linguistic errors were much like those of young children acquiring English as a first and only language.

The studies in the field of linguistic transfer with young bilingual children can be used to support one or more of the following contradictory

conclusions concerning the acquisition of two languages during early childhood:

1. A linguistic transfer phenomenon is evident in which the specific structures of the "dominant" language influence the developmental quality of the less "dominant" language.
2. A linguistic transfer phenomenon is evident in which the structures of the two independent languages influence the developmental quality of both languages, likely producing a third identifiable "interlanguage."
3. The developmental character of the bilingual is not significantly influenced by the simultaneous linguistic development of two languages; the developmental character of each language is similar to that of a native speaker of either language.

Given the contradictory nature of the evidence available at this time, it is safest to conclude that the specific character of transfer between the languages of the bilingual continues to be an area of significant research interest and controversy. It would appear inappropriate at this time to make any other conclusion.

## LINGUISTIC INPUT AND SOCIAL CONTEXT

As Peigel (1968) suggests, any chronological record of the child's linguistic output coupled with linguistic input information would allow an important correlational analysis of language development. Although this extensive information remains unavailable, some systematic semblance

of this type of data is becoming available for monolingual English children (Brown and Fraser, 1963; Schacter, Krishner, Klips, Friedericks, Sanders, 1974). Unfortunately, little information of this calibre is available for young bilingual children.

Although this absence of empirical data is crippling, some cautious notions of bilingual input seem justifiable. If one considers the eventual bilingual character of the child, it seems appropriate to suggest that some percentage of the child's linguistic information is in one language and some other percentage is in a second language. One might tie the acquisition of either language to the general theoretical notion of "degree of linguistic input." Mathematically, the extent of bilingualism would be directly related to the proportion of language information made available.

This simple relationship must be qualified due to several theoretical and empirical considerations. Edelman (1967) reports the differential use of Spanish and English vocabulary in Puerto Rican children on a word naming task as a function of the different contexts (school, home, neighborhood, church) the children were asked to describe. Skrabanek (1970) in a study of Spanish maintenance among Mexican Americans, found that the use of Spanish differed as a function of the age of the speaker. Older subjects spoke more often in Spanish although both young and old alike used Spanish a substantial proportion of the time. Kuo (1974) reports the differential use of language by Chinese American children was related to age and other socialization variables.

These data have specific implications for the earlier formulation of an input analysis. That is, linguistic input may differ for each language across both physical and social settings. Of course, the qualitative nature of the input may also differ (the phonetic, morphological, syntactic and semantic characteristics). This variability of input predictably influence bilingual development. For instance, Harris and Hassemer (1972) found that complexity (in terms of length of sentence) of Spanish and English syntax usage for bilingual children was affected by direct Spanish and English models exemplifying differential levels of syntactic complexity. Recent sociolinguistic formulations of bilingual use, especially the consideration of codeswitching (the alternating use of more than one language by the bilingual), further elucidate the importance of considering more than the simple notion of linguistic input. Zentella (1978) in a study of Puerto Rican children's use of language switching reports that the eight year old children studied already were proficient in using switched utterances to provide emphasis and elaboration. Lindholm and Padilla (1979) have reported similar findings for three and four year-old bilingual Mexican American children.

Useful accounts of early childhood bilingualism must, therefore, take into consideration more than the child's linguistic ability. They must consider the child's surrounding environment. The environmental context will determine:

1. The specific linguistic and meta-linguistic information important for the development of each language.

2. The specific social language use rules for each language.
3. The specific linguistic and sociolinguistic rules governing codeswitching.
4. Prestige of the language, and, therefore, the "motivation" to learn-maintain, or ignore-dissipate languages differentially.

## DIAGNOSTIC EVALUATION OF BILINGUAL CHILDREN

One important function of language assessment is related to the evaluation of speech and language disorders. Assessment and treatment of such disorders are encouraged during early childhood, a time when such intervention seems maximally successful. In screening, the norms will decide the matter of the child's adequacy for communication as compared to other children. Generally speaking, speech pathologists are at a loss for reliable norms against which to compare the bilingual child's performance. Though there are tests for syntax, phonology and morphology these have proven to involve problems such as lack of validity and inapplicability to populations outside those upon which they were standardized.

For diagnosis, more flexible norms, concerning the range of behaviors typically expected at various age levels are used. These norms, encompassing more possible behaviors than would a package test, allow the pathologist to fit the child's specific behaviors (such as babbling, producing two-word utterances) onto a continuum of specific behaviors.

Additionally, probes of a more limited nature can be used to quantify or otherwise describe the child's language. Such norms help the clinician to perform two diagnostic tasks: those of further defining the problem, and those of setting goals for therapy. Such developmental norms are virtually non-existent for the bilingual.

Assessment also involves another area of information, less often considered than norms. Once the speech therapist knows what the child can do, and what others who are somehow comparable can do, she must consider what the child will need to do. In other words, what will be the demands of his environment? The question is not easily answered for the bilingual child. This decision is often made for the monolingual, normal child without much deliberation, because the communication needs of children are a part of the speech pathologist's own experiential knowledge. We all, as members of society, must learn to communicate with roughly equal accuracy regarding our basic needs (more technical and specific uses of language are typically learned after adolescence). Yet, the consideration of special needs is not unknown to speech pathologists. We, as a group, have many dealings with disabled people, who possess varied communication skills, with impairments ranging from an ability to attain the fine motor precision for articulation, to severe mental retardation. We have learned to go outside our personal experience and conceptualize modified needs for communication for those who will not live the life to which the mainstream is accustomed.

In screening, a knowledge of the environment for communication is useful because it affects decisions about which norms to use. Once norms

have been developed for bilingual children living in bilingual communities, it will be necessary to decide whether to apply norms having been developed on such a population, or to use monolingual norms because the child lives in a community that is monolingual. Again, the environment in which the child must function is an important factor in deciding how well he functions.

One problem in developing norms is the heterogeneity of the Spanish-speaking population. Garcia, Gonzalez and Maez (1980) and Laosa (1977) have demonstrated the variability of populations regionally and socio-economically. The first authors have reported significant differences in language switching patterns in young 4, 5 and 6 year-old bilingual children of the Southwest. Specifically, children from Colorado, Arizona, New Mexico and Texas displayed significantly higher rates of language switching than those children from California, Illinois, New York and Florida. Laosa (1977) reports that more Spanish was spoken by parents and by the children in the home among lower SES families. Although not strictly a linguistic study, this work indicates the extent to which class difference plays a part in the variability of performance among Spanish bilingual children. It is analogous to the differences between children of other ethnic backgrounds.

Linguistically, there are variations in the Spanish spoken by members of various bilingual communities. Although studies have yet to be completed describing the various dialects of Spanish as spoken in the U. S., there is no doubt that forms have evolved in this country which are not considered "standard" Spanish. It is very probable that the

dialectical variations of each region are different, since they have developed independently. A study of the speech of Chicano children in Austin, Texas (Matluck, 1979) is illustrative of some dialectical variations in adult Spanish which are due to the influence of English. Phonologically, substitutions occur, such as r/r, meaning that the English "r" is substituted for the Spanish one. Another variation is dropping off the "ll" sound between two vowels so that "ella" becomes "ea." Matluck also makes reference to intonation patterns and allophonic confusion of (b) and (v) as indicating influence from English. Another that has been informally observed is dropping of the "d" between vowels in the ending -ado (as in "Colorado"). These phonological changes do not reflect assimilation to English patterns because the resulting patterns are no more like English. These examples illustrate that language evolution goes on separately in separate language communities, and may or may not have to do with the influence of English. It is clear that there are differences not only in phonology and morphology (as noted previously) but in semantics. This becomes apparent when attempting to administer a language test such as the Test for Auditory Comprehension of Language (Carrow, 1972), which was developed in Texas, to a child in California. Many of the words are unfamiliar to children in this state, though they are presumably familiar to children in Texas.

Considering the comments regarding bilingual diversity in young children and the previous empirical diversity of findings regarding the character of bilingual development, the speech therapist faces a

critical dilemma: (a) to use inappropriate instrumentation and norms in assessing language disorders may lead to false positives; (b) to not address the possible existence of language impairment in bilingual children may result in severe disservice to children in legitimate need. Clearly, developmental data presently cannot yet provide the norms which are needed. Such norms may need to be regionally based and cognizant of sociolinguistic factors associated with the rules of language use within regional and local areas.

Evaluation of speech and language disorders for ethno-linguistic populations, is a tremendous challenge. Unfortunately, it seems a challenge in need of further critical research in both areas of bilingual development and assessment technology. This challenge is not one which cannot be met. But, until such time, speech therapists must understand the dilemma in which they are in, and strive to assure their clientele of the best possible service they are able to provide.

## REFERENCES

Arenas, S. Bilingual/bicultural programs for preschool children. Children Today, 1975, July/August

Bowerman, M. Crosslinguistic similarities at two stages of syntactic development. In Lenneberg, E. and Lenneberg, E., Foundations of language development. L nden: UNESCO Press, 1975.

Brown, R.A. A first language: the early stages. Cambridge: Harvard University Press, 1973

Carringer, D.C. Creative thinking abilities of Mexican Youth: The relationship of bilingualism. Journal of Cross-Cultural Psychology, 1974, 5, 492-504.

Carros, E. Comprehension of English and Spanish by preschool Mexican-American Children. Modern Language Journal, 1971, 55, 299-306.

Carrow, E. Auditory comprehension of English by monolingual and bilingual preschool children. Journal of Speech and Hearing Research, 1972, 15, 407-457.

Carter, T. Mexican Americans in school: A history of educational neglect, New York: College Entrance Examination Board, 1970.

Cummins, J., and Gulatson, M. Bilingual education and cognition. Alberta Journal of Educational Research, 1974, 20, 259-269.

Cummins, J. Linguistic interdependence and the educational development of bilingual children. Review of Educational Research, 1979, 49, 222-251.

Darcy, N.T. A review of the literature of the effects of bilingualism upon the measurement of intelligence. Journal of Genetic Psychology, 1953, 82, 21-57.

Darcy, N.T. Bilingualism and the measurement of intelligence: Review of a decade of research. Journal of Genetic Psychology, 1963, 103, 259-282.

DeVilliers, J., and DeVilliers, P. Language Acquisition. Cambridge, Mass.: Harvard, 1978.

Dulay, H.C. and Burt, M.K. Goofing: An indication of children's second language learning strategies. Language Learning, 1972, 22, 235-252.

Dulay, H.E., Burt, M.K. Should we teach children syntax? Language Learning, 1973, 23, 245-258.

Edelman, M. The contextualization of school children's bilingualism. Modern Language Journal, 1969, 53, 179-182.

Epstein, N. Language, ethnicity and schools: Policy alternative for bilingual-bicultural education, Washington, D.C.: Washington University, Institute for Educational Leadership. 1972.

Evans, J.S. Word pair discrimination and imitation abilities of preschool Spanish-speaking children. Journal of Learning Disabilities, .1974, 7, 573-584.

Feldman, C., Shen, M. Some language related cognitive advantages of bilingual five year-olds. Journal of Genetic Psychology, 1971, 118, 235-244.

Fishman, S.A. and Lovaas, J. Bilingual education in sociological perspective TESOL Quarterly, 1970, 4, 215-222.

Garcia, E., Trujillo, A. A developmental comparison of English and Spanish imitation between bilingual and monolingual children. Journal of Educational Psychology, 1979, 21, 161-168.

Garcia, E. Mother-child bilingual interaction: A developmental analysis, Journal of Discourse Behavior (In Press, 1980a).

Garcia, E. Language switching in bilingual children: A national perspective. In E. Garcia and M. Sam Vargas (eds.) The Mexican American Child: Language, Cognitive and Social Development. Southbend, Indiana: Notre Dame Press, (In Press, 1980b)

Geissler, H. Zweisprachigkeit deuscher kinder im Aushland,. Sttugart: Kohlhammas, 1938.

Harris, M.B., Hassemer, W.G. Some factors affecting the complexity of children's sentences: The effect of modeling, age, sex, and bilingualism. Journal of Experimental Child Psychology, 1972, 13, 447-445

Holguin, R. Curriculum and Instruction: A Handbook for Teaching in a Bilingual Setting. Pomona: Multilingual Multicultural Materials Development Center, 1977.

Huerta, A. The development of codeswitching in a young bilingual. Working Papers in Sociolinguistics, No. 21, June, 1977.

Hymes, D. Models of the interaction of language and social setting, Journal of Social Issues, 1967, 23, 8-28.

Ianco-Worall, A. Bilingualism and cognitive development. Child Development, 1972, 43, 1390-1400.

John, V.P., and Horner, V.M. Early Childhood Bilingual Education. New York: Modern Language Association of America, 1971.

Keats, D.M., and Keats, J.A. The effect of language on concept acquisition in bilingual children. Journal of Cross-Cultural Psychology, 1974, 5 80-99.

Kuo, E.C. The family and bilingual socialization: A sociolinguistic study of a sample of Chinese children in the United States. Journal of Social Psychology, 1974, 92, 181-191.

Lambert, W., and Tucker, G. Bilingual education of children: The St. Lambert experiment. Rowley, Massachusetts: Newbury House, 1972.

Lenneberg, E., and Lenneberg, E. Foundations of language development, Vol,I and Vol. II, London: The UNESCO Press, 1975.

Leopold, W.F. Speech development of a bilingual child: A linguist's record. Vol. I, Vocabulary growth in the first two years. Evanston, Ill.: Northwestern University Press, 1939.

Leopold, W.F. Speech development of a bilingual child: A linguist's record. Vol. II, Sound learning in the first two years, Evanston, Ill.: Northwestern University Press, 1947.

Leopold, W.F. Speech development of a bilingual child: A linguist's record Vol. III. Grammars and general problems in the first two years. Evanston, Ill.: Northwestern University Press, 1949(a).

Leopold, W.F. Speech development of a bilingual child: A linguist's record. Vol. IV, Diary from age two. Evanston, Ill.: Northwestern University Press, 1949(b).

Lindholm, K.J. and Padilla, A.M. Child bilingualism: Report on language mixing, switching and translations. Linguistics, 1979, 211, 23-44.

Lopez, M. Psycholinguistic research and bilingual education. In J. Martinez (ed.), Chicano Psychology. New York: Academic Press, 1977.

MacNamara, J. Bilingualism in the modern world. Journal of Social Issues, 1967, 23, 1-7.

MacNab, G.C. Cognition and bilingualism: a re-analysis of studies. Linguistics, 1979, 17, 231-255.

McLaughlin, B. Second language learning in children. Psychological Bulletin, 1977, 84, 438-459.

McLaughlin, B. Second language acquisition in childhood. Hilldsale, N.J.: Lawrence Erlbaum Assoc., Inc., 1978.

McNeil, D. Developmental Psycholinguistics. In Frank Smith and George Miller (eds.), The genesis of language: A psycholinguistic approach. Cambridge Mass.: M.I.T. Press, 1965, 15-84.

Menyuk, P. The acquisition and development of language. New York: Prentice-Hall, 1971

Pacheco, M.T. Approaches to bilingualism: Recognition of a multilingual society. In D.C. Lange (ed.). Pluralism in foreign language education. Skokie, Ill.: National Textbook, 1973.

Padilla, A Child bilingualism: Insights to issues, In J. Martinez (ed.), Chicano Psychology, New York: Academic Press, 1977.

Padilla, A., Liebman, E. Language acquisition in the bilingual child. The bilingual review/La revista bilingüe, 1975, 2 34-55.

Pavlovitch, M. Le langage enfantin: Acquisition du serbe et du francais par un enfant serbe. Paris: Champion, 1920.

Price-Williams, D.R. Explorations in Cross-cultural psychology. San Francisco Chandler and Sharp, 1975.

Ramirez, M., and Castañeda, A! Cultural democracy, bicognitive development and education. New York: Academic Press, 1974

Riegel, K.F. Some theoretical considerations of bilingual development. Psychological Bulletin, 1968, 70, 647-470.

Ronjat, J. Le development du langage observe chez un enfant bilingue. Paris: Champion, 1913:

Saville, M.R. Interference phenomenon in language teaching: Their nature, extent, and significance in the acquisition of standard English. Elementary English, 1971, March, 396-405.

Schacter, F.F., Kirshner, D., Klips, B., Friederixks, M., and Sanders, K. Everyday preschool interpersonal speech usage: Methodological, development and sociolinguistic studies. Monographs of Society for Research in Child Development,

Skrabanek, R.L. Language maintenance among Mexican-Americans. International Journal of Comparative Sociology, 1970, 11, 272-282.

Smith, M.D. A study of the speech of eight bilingual children of the same family. Child Development. 1935, 6, 19-25.

Sorensen, A.P. Multilingualism in the Northwest Amazon. American Anthropologist, 1967, 69, 670-684

U.S. Commission on Civil Rights, Toward quality education for Mexican Americans: Report IV: Mexican American education study. Washington, D.C.: U.S. Commission on Civil Rights, 1974.

Valdes-Fallis, G. Language diversity in Chicano speech communities: Implications for language teaching. Working Papers in Sociolinguistics, #54, Jan. 1979.

Vildomec, V. Multilinqualism. Leyden: A. W. Sijthoff, 1971.

Weinrich, U. Languages in Contact. New York: Linguistic Circle of New York, 1953.

Williams, L.R. Early childhood education in the 1970's: Some reflections on reaching adulthood. Teachers College Record, 1978, 79, 529-538.

Zentella, M. Codeswitching in elementary level Puerto Rican children. Working Papers in Sociolinguistics #43, Sept., 1978.

## REFERENCES

Arenas, S. Bilingual/bicultural programs for preschool children. Children Today, 1975, July/August

Bowerman, M. Crosslinguistic similarities at two stages of syntactic development. In Lenneberg, E. and Lenneberg, E., Foundations of language development. L nden: UNESCO Press, 1975.

Brown, R.A. A first language: the early stages. Cambridge: Harvard University Press, 1973

Carringer, D.C. Creative thinking abilities of Mexican Youth: The relationship of bilingualism. Journal of Cross-Cultural Psychology, 1974, 5, 492-504.

Carros, E. Comprehension of English and Spanish by preschool Mexican-American Children. Modern Language Journal, 1971, 55, 299-306.

Carrow, E. Auditory comprehension of English by monolingual and bilingual preschool children. Journal of Speech and Hearing Research, 1972, 15, 407-457.

Carter, T. Mexican Americans in school: A history of educational neglect, New York: College Entrance Examination Board, 1970.

Cummins, J., and Gulatson, M. Bilingual education and cognition. Alberta Journal of Educational Research, 1974, 20, 259-269.

Cummins, J. Linguistic interdependence and the educational development of bilingual children. Review of Educational Research, 1979, 49, 222-251.

Darcy, N.T. A review of the literature of the effects of bilingualism upon the measurement of intelligence. Journal of Genetic Psychology, 1953, 82, 21-57.

Darcy, N.T. Bilingualism and the measurement of intelligence: Review of a decade of research. Journal of Genetic Psychology, 1963, 103, 259-282.

DeVilliers, J., and DeVilliers, P. Language Acquisition. Cambridge, Mass.: Harvard, 1978.

Dulay, H.C. and Burt, M.K. Goofing: An indication of children's second language learning strategies. Language Learning, 1972, 22, 235-252.

Dulay, H.E., Burt, M.K. Should we teach children syntax? Language Learning, 1973, 23, 245-258.

Edelman, M. The contextualization of school children's bilingualism. Modern Language Journal, 1969, 53, 179-182.